AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled).

2. (currently amended) ~~The sensor-incorporating tire according to claim 1,~~ A sensor-incorporating tire which incorporates sensors for detecting the conditions of a running tire, comprising:

at least two tire input detection means for detecting an input from the road which acts on a tire tread portion, which are buried in a tread rubber on the outer side in the radial direction of a tire belt layer;

wherein two of the tire input detection means are arranged at linearly symmetrical positions which are equally distant in the axial direction from the center in the axial direction of the tire.

3. (currently amended) The sensor-incorporating tire according to claim 2 ~~claim 1~~, wherein the tire input detection means are arranged on the inner side in the radial direction of a tread block contact portion.

4. (currently amended) The sensor-incorporating tire according to claim 2 ~~claim 1~~, wherein the tire input detection means are pressure sensors whose detection direction is a tire radial direction.

5. (currently amended) The sensor-incorporating tire according to claim 2~~claim 1~~, wherein the tire input detection means are pressure sensors whose detection direction is a tire circumferential direction.

6. (previously presented): A tire condition estimating method comprising the steps of:

detecting the contact lengths of at least two locations of a tire tread portion by using wheel speed measuring means, and

a sensor-incorporating tire comprising at least two tire input detection means for detecting an input from the road which acts on a tire tread portion, which are buried in a tread rubber on the outer side in the radial direction of a tire belt layer; and

estimating the conditions of a running tire based on the detected contact lengths.

7. (original) The tire condition estimating method according to claim 6, wherein the contact lengths at linearly symmetrical positions which are equally distant in the axial direction from the center in the tire axial direction of the tire tread portion are detected to estimate lateral force generated by the tire from the ratio of the contact lengths.

8. (original) The tire condition estimating method according to claim 6, wherein the contact lengths at linearly symmetrical positions which are equally distant in the axial direction from the center in the tire axial direction of the tire tread portion are detected to estimate a load applied to the tire from the average value of the contact lengths.

9. (original) The tire condition estimating method according to claim 7, wherein the contact lengths at linearly symmetrical positions which are equally distant in the axial direction from the center in the tire axial direction of the tire tread portion are detected to estimate a load applied to the tire from the average value of the contact lengths, and the lateral force estimated value is corrected by using this load estimated value.

10. (original) The tire condition estimating method according to claim 6, wherein the attitude angle of the tire is estimated from the level ratio of the front half to the latter half of ground contact of the tire input detection value and the ratio of the contact lengths at linearly symmetrical positions which are equally distant in the axial direction from the center in the tire axial direction of the tire tread portion.

11. (original) The tire condition estimating method according to claim 7, wherein the attitude angle of the tire is estimated from the level ratio of the front half to the latter half of ground contact of the tire input detection value and the ratio of the contact lengths at linearly symmetrical positions which are equally distant in the axial direction from the center in the tire axial direction of the tire tread portion, and the lateral force estimated value is corrected by using this attitude angle estimated value.

12. (original) The tire condition estimating method according to claim 6, wherein the contact lengths at linearly symmetrical positions which are equally distant in the axial direction

from the center in the tire axial direction of the tire tread portion are detected to estimate whether the tire is approaching the grip limit from a change in the ratio of the contact lengths.

13. (original) The tire condition estimating method according to claim 6, wherein the contact lengths at linearly symmetrical positions which are equally distant in the axial direction from the center in the tire axial direction of the tire tread portion are detected to estimate a friction coefficient between the tire and the road from a change in the ratio of the contact lengths.

14. (original) The tire condition estimating method according to claim 13, wherein the estimated road friction coefficient is corrected based on a slip ratio computed from the wheel speed of a driving wheel and the wheel speed of a driven wheel.

15. (previously presented) A tire condition estimating method comprising the steps of:

monitoring the ratio of tire input detection values at linearly symmetrical positions which are equally distant in the axial direction from the center in the tire axial direction of the tire tread portion obtained by using a sensor-incorporating tire comprising at least two tire input detection means for detecting an input from the road which acts on a tire tread portion, which are buried in a tread rubber on the outer side in the radial direction of a tire belt layer; and

estimating that the unsymmetrical wear of the tire proceeds when the ratio exceeds a preset threshold value for a predetermined time or longer.